

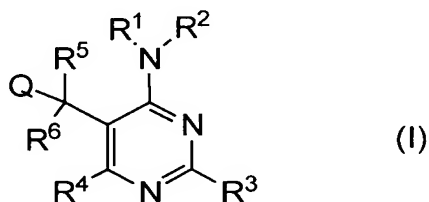
AMENDMENTS TO THE CLAIMS:

Please change the heading at page 157, line 1, from "Claims" to --WHAT IS CLAIMED IS:--

The following listing of claims will replace all prior versions of claims in the application.

Claims 1-8 (canceled)

-- Claim 9 (new): A method of protecting plants or materials from undesired microorganisms in agriculture and horticulture comprising applying to the microorganisms and/or their habitat a benzylpyrimidine derivative represented by formula (I)



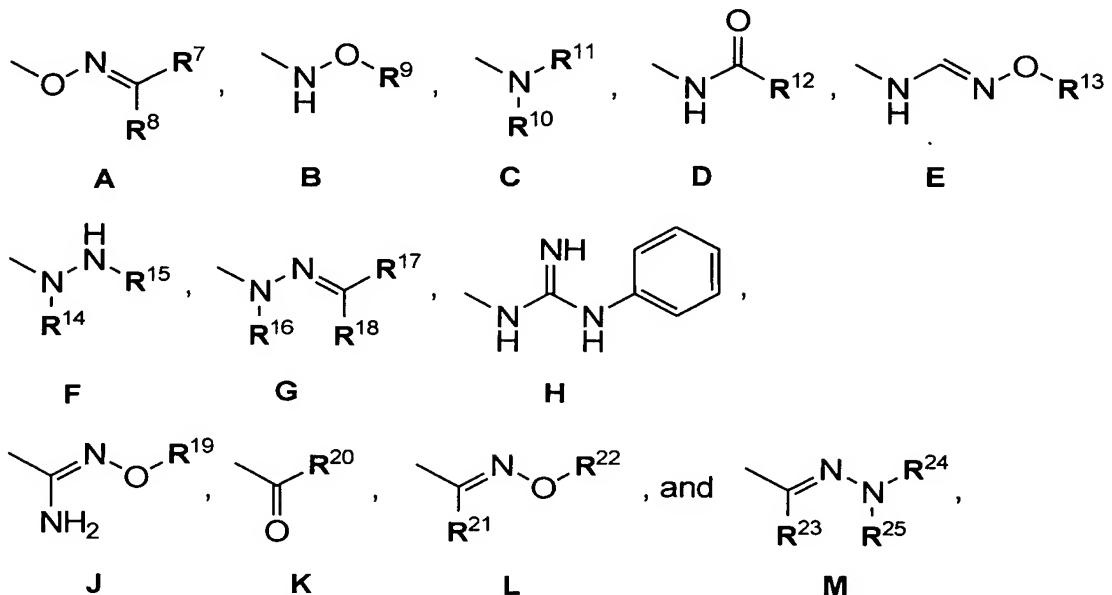
wherein

R¹ and R², together with the nitrogen atom to which they are bonded, form a 3- to 10-membered heterocyclic group that is optionally substituted and optionally contains one to three further hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and S(O)_n in addition to the nitrogen atom to which R¹ and R² are bonded,

n represents 0, 1, or 2,

R³ represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted with a group selected from the group consisting of halogen, alkyl,

and haloalkyl; or represents a moiety selected from the group consisting of formulas A to H and J to M



in which

R^7 represents hydrogen atom, alkyl, or haloalkyl, and

R^8 represents alkyl, phenyl, alkoxy or cyano, or

R^7 and R^8 , together with the carbon atom to which they are bonded, form a cycloalkylidene,

R^9 represents alkyl, haloalkenyl, or benzyl,

R^{10} represents hydrogen atom or alkyl,

R^{11} represents alkyl, alkoxyalkyl, dialkylaminoalkyl, phenyl, benzyl, or cyano,

R^{12} represents alkyl or phenyl,

R^{13} represents alkyl or benzyl,

R^{14} represents hydrogen atom or alkyl,

R^{15} represents hydrogen atom, haloalkyl, or phenyl,

R^{16} represents hydrogen atom or alkyl,

R^{17} represents hydrogen atom, alkyl, or haloalkyl,

R^{18} represents alkyl or phenyl,

R^{19} represents hydrogen atom or alkyl,

R^{20} represents alkyl,

R^{21} represents alkyl,

R²² represents alkyl, alkenyl, haloalkenyl, alkoxyalkyl, phenoxyalkyl, or alkoxycarbonylalkyl,

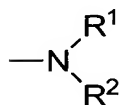
R²³ represents alkyl, and

R²⁴ represents hydrogen atom or alkyl, and

R²⁵ represents alkyl or phenyl, or

R²⁴ and R²⁵, together with the nitrogen atom to which they are bonded, form a 5- to 8-membered saturated monoheterocyclic group that is optionally substituted and optionally contains one or two further hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and S(O)_n in addition to the nitrogen atom to which R²⁴ and R²⁵ are bonded,

R⁴ represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group

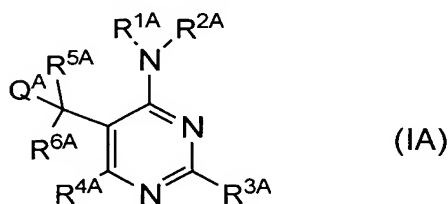


where R¹ and R² are as defined above,

R⁵ and R⁶ each independently represents hydrogen atom, halogen, alkyl, haloalkyl, or phenyl that is optionally substituted, and

Q represents aryl that is optionally substituted or a 5- or 6-membered heterocyclic group that contains one hetero atom selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted.

Claim 10 (new): A benzylpyrimidine derivative represented by formula (IA)



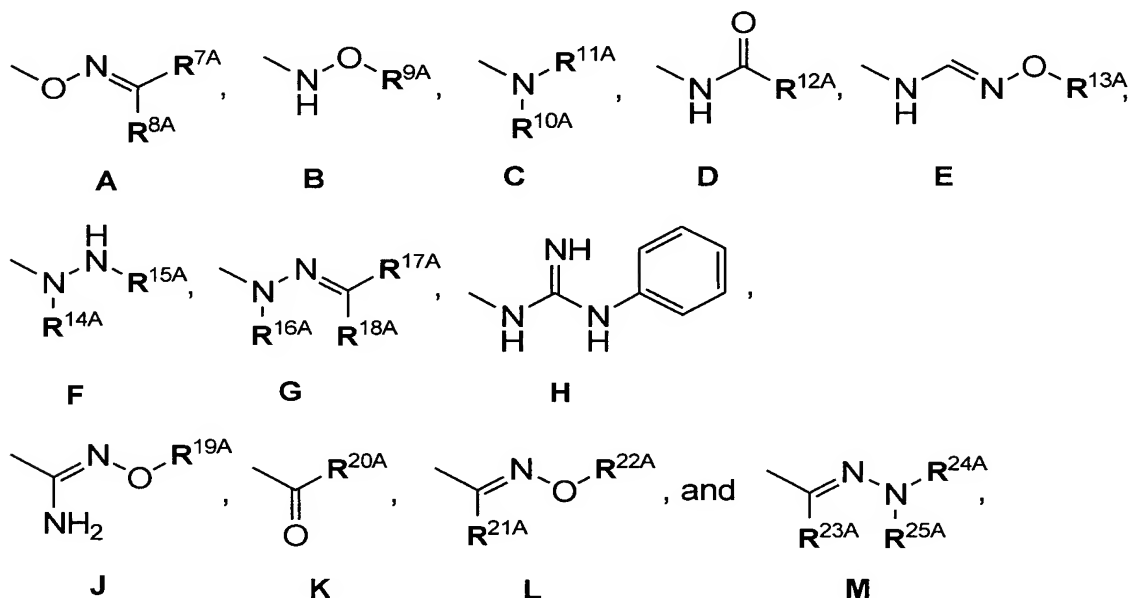
wherein

R^{1A} and R^{2A}, together with the nitrogen atom to which they are bonded, form a 3- to 10-membered heterocyclic group that is optionally substituted and optionally contains one to three further hetero atoms selected from the group consisting

of nitrogen atom, oxygen atom, and S(O)_m in addition to the nitrogen atom to which R^{1A} and R^{2A} are bonded,

m represents 0, 1, or 2,

R^{3A} represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted with a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a moiety selected from the group consisting of A to H and J to M



in which

R^{7A} represents hydrogen atom, alkyl, or haloalkyl, and

R^{8A} represents alkyl, phenyl, alkoxy, or cyano, or

R^{7A} and R^{8A}, together with the carbon atom to which they are bonded, form a cycloalkylidene,

R^{9A} represents alkyl, haloalkenyl, or benzyl,

R^{10A} represents hydrogen atom or alkyl,

R^{11A} represents alkyl, alkoxyalkyl, dialkylaminoalkyl, phenyl, benzyl, or cyano,

R^{12A} represents alkyl or phenyl,

R^{13A} represents alkyl or benzyl,

R^{14A} represents hydrogen atom or alkyl,

R^{15A} represents hydrogen atom, haloalkyl, or phenyl,

R^{16A} represents hydrogen atom or alkyl,

R^{17A} represents hydrogen atom, alkyl, or haloalkyl,

R^{18A} represents alkyl or phenyl,

R^{19A} represents hydrogen atom or alkyl,

R^{20A} represents alkyl,

R^{21A} represents alkyl,

R^{22A} represents alkyl, alkenyl, haloalkenyl, alkoxyalkyl, phenoxyalkyl, or alkoxycarbonylalkyl,

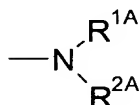
R^{23A} represents alkyl, and

R^{24A} represents hydrogen atom or alkyl, and

R^{25A} represents alkyl or phenyl, or

R^{24A} and R^{25A}, together with the nitrogen atom to which they are bonded, form a 5- to 8-membered saturated monoheterocyclic group that is optionally substituted and optionally contains one or two further hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and S(O)_n in addition to the nitrogen atom to which R^{24A} and R^{25A} are bonded,

R^{4A} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



where R^{1A} and R^{2A} are as defined above,

R^{5A} and R^{6A} each independently represents hydrogen atom, halogen, alkyl, haloalkyl, or phenyl that is optionally substituted, and

Q^A represents aryl that is optionally substituted, a 5 or 6-membered heterocyclic group that contains one hetero atom selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted, with the proviso that the following cases (T-1) to (T-6) are excluded:

(T-1) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{matrix}$ represents 1-pyrrolyl, 1-imidazolyl, 3-oxopiperidino, or

4-oxopiperidino,

R^{3A} represents hydrogen atom,

R^{4A} represents hydrogen atom, and

Q^A represents 1-naphthyl or phenyl group that is optionally substituted by one or two groups selected from the group consisting of chloro, methyl, ethyl, and trifluoromethyl,

(T-2) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{matrix}$ represents 3-oxopiperidino, 4-oxopiperidino,

4-hydroxypiperidino, 4-carbamoylpiperidino, 4-methylpiperazino, 4-ethylpiperazino, 4-(2-hydroxyethyl)piperazino, or morpholino,

R^{3A} represents amino,

R^{4A} represents hydrogen atom, and

Q^A represents 3-pyridyl or phenyl group that is optionally substituted by one to three groups selected from the group consisting of fluoro, chloro, bromo, methyl, ethyl, isopropyl, trifluoromethyl, hydroxy, methoxy, and 4-chlorobenzyloxy,

(T-3) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{matrix}$ represents piperidino, 4-hydroxypiperidino,

4-methylpiperazino, morpholino, 6,7-dimethoxy-1,2,3,4-tetrahydro-isoquinolin-2-yl or 6,7-dimethoxy-1-(3,4-dimethoxybenzyl)-1,2,3,4-tetrahydroisoquinolin-2-yl,

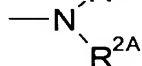
R^{3A} represents chloro, dimethylamino, anilino, 2-(2-hydroxyethoxy)-ethylamino, piperidino, 4-hydroxypiperidino, 4-carbamoylpiperidino, 4-methylpiperazino, or morpholino,

R^{4A} represents hydrogen atom, and

Q^A represents phenyl group that is optionally substituted by one or two groups selected from the group consisting of methyl and methoxy,

(T-4) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-pyrrolidinyl, piperidino, morpholino, or



1-pyrrolyl,

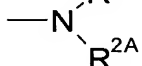
R^{3A} represents methyl or methoxymethyl,

R^{4A} represents chloro, and

Q^A represents phenyl or 1-naphthyl,

(T-5) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-azolidinyl, piperidino, or morpholino,



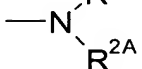
R^{3A} represents methylthio,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy, ethoxy, n-propoxy, iso-propoxy, n-butoxy, iso-butoxy, or allyloxy, and

(T-6) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-azolidinyl,



R^{3A} represents hydrogen atom or amino,

R^{4A} represents chloro, and

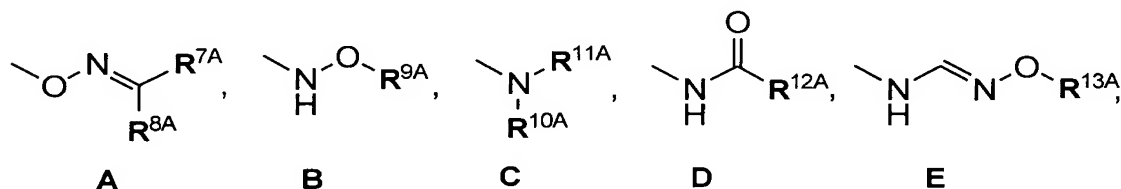
Q^A represents phenyl group substituted by methoxy, ethoxy, or allyloxy.

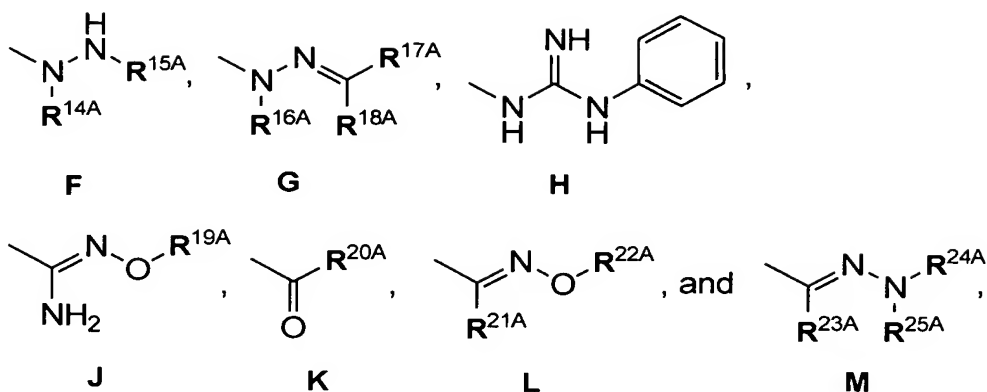
Claim 11 (new): A compound according to Claim 10 wherein

R^{1A} and R^{2A}, together with the nitrogen atom to which they are bonded, form a heterocyclic group that is a monovalent group derived from a heterocycle selected from the group consisting of aziridine, azetidine, pyrrolidine,

3-pyrroline, piperidine, perhydroazepine, perhydroazocine, perhydro-1,2-diazepine, perhydro-1,2,5-oxadiazepine, 2-pyrazoline, thiazolidine, perhydro-indole, 1,2,3,3a,4,7,7a-heptahydroisindole, 1,2,3,6-tetrahydropyridine, perhydroquinoline, perhydroisoquinoline, 1,4,5,6-tetrahydropyridazine, morpholine, thiomorpholine, thiomorpholine-1,1-dioxide, piperazine, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, tetrazole and 1H-indazole and may be optionally substituted by one to three groups selected from the group consisting of fluoro, bromo, C₁₋₄alkyl, C₁₋₄haloalkyl, C₁₋₄alkoxy, C₁₋₄alkylthio, benzylthio, hydroxyl-C₁₋₄alkyl, C₁₋₄alkoxy-C₁₋₄alkyl, aniline-C₁₋₄alkyl, C₁₋₄haloalkylene, C₁₋₄alkoxy-carbonyl, benzyloxycarbonyl, C₁₋₄alkyl-carbonyl, C₁₋₇haloalkyl-carbonyl, phenyl, benzyl, pyridyl, hydroxy, oxo, cyano, carboxy, carbamoyl, C₁₋₄alkoxy-carbonyl-C₁₋₄alkyl, C₁₋₄alkyl-carbonylamino, and C₁₋₄haloalkyl-carbonylamino,

R^{3A} represents hydrogen, chloro, cyano, hydroxy, amino, azido, C₁₋₆alkyl, C₁₋₆haloalkyl, C₁₋₆alkoxyC₁₋₆alkyl, C₃₋₇cycloalkyl, C₂₋₇alkenyl, C₂₋₇alkynyl, C₁₋₆alkoxy, C₁₋₆haloalkoxy, C₂₋₇alkenyloxy, C₂₋₇haloalkenyloxy, C₁₋₆alkylthio, C₂₋₇alkenylthio, C₂₋₇haloalkenylthio, C₁₋₆alkylsulfinyl, C₁₋₆alkylsulfonyl, phenoxy, benzyloxy, phenyl that is optionally substituted by one or two groups selected from the group consisting of chloro, C₁₋₆alkyl, C₁₋₆alkoxy, and C₁₋₆haloalkyl, phenyl-C₁₋₄alkyl that is optionally chloro-substituted, or phenoxy-C₁₋₄alkyl that is optionally chloro-substituted; represents a heterocyclic group that is a monovalent group derived from a heterocycle selected from the group consisting of pyrrolidine, piperidine, morpholine, thiomorpholine, piperazine, thiophene, thiazole, pyridine, quinoline, isoquinoline, pyrazine, pyridazine, pyrimidine, imidazole, pyrazole, tetrazole, 1,2,4-triazole, and 2,3-dihydroindole and is optionally substituted by a group selected from the group consisting of chloro, bromo, C₁₋₆alkyl, and C₁₋₆haloalkyl; or represents a moiety selected from the group consisting of formulas A to H and J to M





in which

R^{7A} represents hydrogen atom, C_{1-6} alkyl, or C_{1-6} haloalkyl,

R^{8A} represents C_{1-6} alkyl, phenyl, C_{1-6} alkoxy, or cyano,

R^{7A} and R^{8A} , together with the carbon atom to which they are bonded, form a C_{5-8} cycloalkylidene,

R^{9A} represents C_{1-6} alkyl, C_{2-7} haloalkenyl, or benzyl,

R^{10A} represents hydrogen atom or C_{1-6} alkyl,

R^{11A} represents C_{1-6} alkyl, C_{1-6} alkoxy- C_{1-6} alkyl, di(C_{1-6} alkyl)amino- C_{1-6} alkyl, phenyl, benzyl, or cyano,

R^{12A} represents C_{1-6} alkyl or phenyl,

R^{13A} represents C_{1-6} alkyl or benzyl,

R^{14A} represents hydrogen atom or C_{1-6} alkyl,

R^{15A} represents hydrogen atom, C_{1-6} haloalkyl, or phenyl,

R^{16A} represents hydrogen atom or C_{1-6} alkyl,

R^{17A} represents hydrogen atom, C_{1-6} alkyl, or C_{1-6} haloalkyl,

R^{18A} represents C_{1-6} alkyl or phenyl,

R^{19A} represents hydrogen atom or C_{1-6} alkyl,

R^{20A} represents C_{1-6} alkyl,

R^{21A} represents C_{1-6} alkyl,

R^{22A} represents C_{1-6} alkyl, C_{2-7} alkenyl, C_{2-7} haloalkenyl, C_{1-6} alkoxy- C_{1-6} alkyl, phenoxy- C_{1-6} alkyl, or C_{1-6} alkoxycarbonyl- C_{1-6} alkyl,

R^{23A} represents C_{1-6} alkyl, and

R^{24A} represents hydrogen atom or C_{1-6} alkyl, and

R^{25A} represents C_{1-6} alkyl or phenyl, or

R^{24A} and R^{25A} , together with the nitrogen atom to which they are bonded, form a saturated-monoheterocyclic group that is a monovalent group derived from a monoheterocycle selected from the group consisting of pyrrolidine, piperidine, morpholine, and piperazine and is optionally substituted with C_{1-4} alkyl,

R^{4A} represents hydrogen atom, fluoro, chloro, cyano, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{2-7} alkenyl, C_{2-7} alkynyl, C_{1-6} alkoxy, C_{1-6} haloalkoxy, C_{1-6} alkylthio, C_{1-6} haloalkylthio, C_{1-6} alkylsulfinyl, C_{1-6} alkylsulfonyl, or pyrazolyl that is optionally C_{1-6} alkyl-substituted or C_{1-6} haloalkyl-substituted,

R^{5A} and R^{6A} each independently represents hydrogen atom, fluoro, C_{1-4} alkyl, C_{1-4} haloalkyl, or phenyl, and

Q^A represents naphthyl, phenyl that is optionally substituted, pyridyl that is optionally substituted, thienyl that is optionally substituted, or furyl that is optionally substituted, wherein substituents to phenyl, pyridyl, thienyl, and furyl are one to five groups selected from the group consisting of fluoro, chloro, C_{1-4} alkyl, C_{1-4} haloalkyl, C_{1-4} alkoxy, C_{1-4} haloalkoxy, cyano, nitro, amino, and phenyl,

with the proviso that the following cases (T-1) to (T-6) are excluded:

(T-1) benzylpyrimidine derivatives in which

the group $\begin{array}{c} \text{—N—}R^{1A} \\ \quad \quad \quad \backslash \\ \quad \quad \quad R^{2A} \end{array}$ represents 1-pyrrolyl, 1-imidazolyl, 3-oxopiperidino, or

4-oxopiperidino,

R^{3A} represents hydrogen atom,

R^{4A} represents hydrogen atom, and

Q^A represents 1-naphthyl or phenyl group that is optionally substituted by one or two groups selected from the group consisting of chloro, methyl, ethyl, and trifluoromethyl,

(T-2) benzylpyrimidine derivatives in which

the group $\begin{array}{c} \text{—N—}R^{1A} \\ \quad \quad \quad \backslash \\ \quad \quad \quad R^{2A} \end{array}$ represents 3-oxopiperidino, 4-oxopiperidino,

4-hydroxypiperidino, 4-carbamoylpiperidino, 4-methylpiperazino, 4-ethylpiperazino, 4-(2-hydroxyethyl)piperazino, or morpholino,

R^{3A} represents amino,

R^{4A} represents hydrogen atom, and

Q^A represents 3-pyridyl or phenyl group that is optionally substituted by one to three groups selected from the group consisting of fluoro, chloro, methyl, ethyl, isopropyl, trifluoromethyl, and methoxy,

(T-3) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents piperidino, 4-hydroxypiperidino,

4-methylpiperazino, or morpholino,

R^{3A} represents chloro, dimethylamino, anilino, piperidino, 4-methylpiperazino, or morpholino,

R^{4A} represents hydrogen atom, and

Q^A represents phenyl group that is optionally substituted by one or two groups selected from the group consisting of methyl and methoxy,

(T-4) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents 1-pyrrolidinyl, piperidino, morpholino, or

1-pyrrolyl,

R^{3A} represents methyl or methoxymethyl,

R^{4A} represents chloro, and

Q^A represents phenyl or 1-naphthyl,

(T-5) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents 1-azilidinyl, piperidino, or morpholino,

R^{3A} represents methylthio,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy, ethoxy, n-propoxy, iso-propoxy, n-butoxy, or iso-butoxy, and

(T-6) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents 1-azilidinyl,

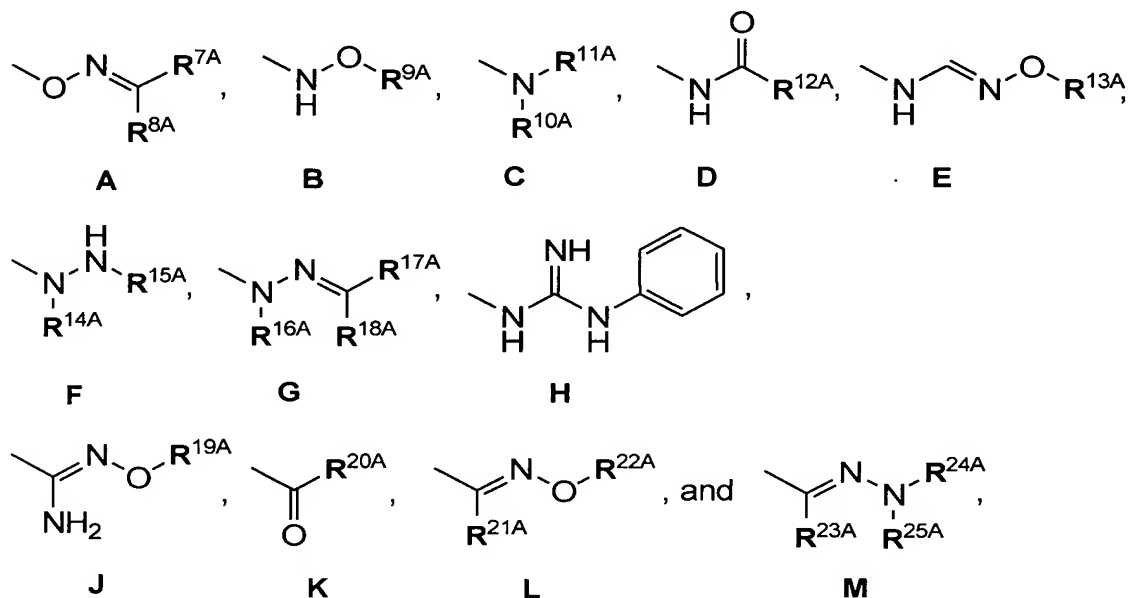
R^{3A} represents hydrogen atom or amino,
 R^{4A} represents chloro, and
 Q^A represents phenyl group substituted by methoxy or ethoxy.

Claim 12 (new): A compound according to Claim 10 wherein

R^{1A} and R^{2A} , together with the nitrogen atom to which they are bonded, form a heterocyclic group that is a monovalent group derived from a heterocycle selected from the group consisting of aziridine, azetidine, pyrrolidine, 3-pyrroline, piperidine, perhydroazepine, perhydroazocine, perhydro-1,2-diazepine, perhydro-1,2,5-oxadiazepine, 2-pyrazoline, thiazolidine, perhydro-indole, 1,2,3,3a,4,7,7a-heptahydroisindole, 1,2,3,6-tetrahydropyridine, perhydroquinoline, perhydroisoquinoline, 1,4,5,6-tetrahydropyridazine, morpholine, thiomorpholine, thiomorpholine-1,1-dioxide, piperazine, pyrrole, pyrazole, imidazole, 1,2,3-triazole, 1,2,4-triazole, tetrazole, and 1H-indazole and is optionally substituted with 1 to 3 groups selected from the group consisting of fluoro, bromo, methyl, ethyl, n-propyl, fluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl, methoxy, methylthio, benzylthio, hydroxymethyl, 2-hydroxyethyl, methoxymethyl, anilinomethyl, difluoromethylene, dichloromethylene, methoxycarbonyl, ethoxycarbonyl, benzyloxycarbonyl, acetyl, trifluoromethylcarbonyl, trichloromethylcarbonyl, 1,1,2,2-tetrafluoroethylcarbonyl, perfluoroethylcarbonyl, perfluoroheptylcarbonyl, phenyl, benzyl, 2-pyridyl, hydroxy, oxo, cyano, carboxy, carbamoyl, ethoxycarbonylmethyl, methylcarbonylamino, and trifluoromethylcarbonylamino,

R^{3A} represents hydrogen, chloro, cyano, hydroxy, amino, azido, methyl, ethyl, iso-propyl, tert-butyl, trifluoromethyl, methoxymethyl, cyclopropyl, allyl, ethynyl, 1-propynyl, methoxy, ethoxy, n-propyloxy, n-butyloxy, 2,2,2-trifluoroethyloxy, allyloxy, 2-methyl-4-pentenyl, 3-chloro-4,4,4-trifluoro-2-butenyloxy, methylthio, ethylthio, n- or iso-propylthio, n-, sec- or tert-butylthio, allylthio, 3,3-dichloroallylthio, methylsulfinyl, methylsulfonyl, phenoxy, benzyloxy, phenyl that is optionally substituted with 1 to 2 groups selected from the group consisting of chloro, methyl, methoxy, and trifluoromethyl, benzyl that is optionally chloro-substituted, or phenoxymethyl that is optionally chloro-substituted; represents a heterocyclic group that is a monovalent group

derived from a heterocycle selected from the group consisting of pyrrolidine, piperidine, morpholine, thiomorpholine, piperazine, thiophene, thiazole, pyridine, quinoline, isoquinoline, pyrazine, pyridazine, pyrimidine, imidazole, pyrazole, tetrazole, 1,2,4-triazole, and 2,3-dihydroindole and is optionally substituted by a group selected from the group consisting of chloro, bromo, methyl, and trifluoromethyl; or represents a moiety selected from the group consisting of formulas A to H and J to M



in which

$\text{R}^{7\text{A}}$ represents hydrogen atom, methyl, or trifluoromethyl, and

$\text{R}^{8\text{A}}$ represents methyl, iso- or tert-butyl, neo-pentyl, phenyl, ethoxy, or cyano, or

$\text{R}^{7\text{A}}$ and $\text{R}^{8\text{A}}$, together with the carbon atom to which they are bonded, form a cyclopentylidene or cyclohexylidene,

$\text{R}^{9\text{A}}$ represents methyl, 3,3-dichloroallyl, or benzyl,

$\text{R}^{10\text{A}}$ represents hydrogen atom, methyl, or ethyl,

$\text{R}^{11\text{A}}$ represents methyl, ethyl, iso-propyl, methoxyethyl, dimethylaminoethyl, phenyl, benzyl, or cyano,

$\text{R}^{12\text{A}}$ represents methyl or phenyl,

$\text{R}^{13\text{A}}$ represents methyl or benzyl,

$\text{R}^{14\text{A}}$ represents hydrogen atom or methyl,

$\text{R}^{15\text{A}}$ represents hydrogen atom, 2,2,2-trifluoroethyl, or phenyl,

- R^{16A} represents hydrogen atom or methyl,
- R^{17A} represents hydrogen atom, methyl, or trifluoromethyl,
- R^{18A} represents methyl or phenyl,
- R^{19A} represents hydrogen atom or methyl,
- R^{20A} represents methyl, ethyl, or n- or iso-propyl,
- R^{21A} represents methyl or ethyl,
- R^{22A} represents methyl, ethyl, n-propyl, n- or tert-butyl, allyl, 2-chloro-2-propenyl, 3-chloro-2-propenyl, 3,3-dichloro-2-propenyl, 2-methoxyethyl, 2-phenoxypropyl, or tert-butoxycarbonylmethyl,
- R^{23A} represents methyl, and
- R^{24A} represents hydrogen atom or methyl, and
- R^{25A} represents iso-propyl or phenyl, or
- R^{24A} and R^{25A}, together with the nitrogen atom to which they are bonded, form a saturated monoheterocyclic group that is a monovalent group derived from a monoheterocycle selected from the group consisting of pyrrolidine, piperidine, morpholine, and piperazine and is optionally substituted by methyl,
- R^{4A} represents hydrogen atom, chloro, cyano, methyl, trifluoromethyl, allyl, ethynyl, 1-propynyl, methoxy, 2,2,2-trifluoroethoxy, methylthio, C₁₋₆halo-alkylthio, methylsulfinyl, methylsulfonyl, or pyrazolyl that is optionally methyl-substituted or trifluoromethyl-substituted,
- R^{5A} and R^{6A} each independently represents hydrogen atom, fluoro, methyl, ethyl, iso-propyl, trifluoromethyl, or phenyl, and
- Q^A represents naphthyl, phenyl that is optionally substituted, pyridyl that is optionally substituted, thienyl that is optionally substituted, or furyl that is optionally substituted, wherein substituents to phenyl, pyridyl, thienyl, and furyl are 1 to 5 groups selected from the group consisting of fluoro, chloro, methyl, tert-butyl, trifluoromethyl, methoxy, trifluoromethoxy, cyano, nitro, amino, and phenyl,

with the proviso that the following cases (T-1) to (T-6) are excluded:

(T-1) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents 1-pyrrolyl, 1-imidazolyl, 3-oxopiperidino, or

4-oxopiperidino,

R^{3A} represents hydrogen atom,

R^{4A} represents hydrogen atom, and

Q^A represents 1-naphthyl or phenyl group that is optionally substituted with 1 to 2 groups selected from the group consisting of chloro, methyl, and trifluoromethyl,

(T-2) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents 3-oxopiperidino, 4-oxopiperidino, 4-hydroxy-

piperidino, 4-carbamoylpiperidino, 4-methylpiperazino, 4-ethylpiperazino, 4-(2-hydroxyethyl)piperazino, or morpholino,

R^{3A} represents amino,

R^{4A} represents hydrogen atom, and

Q^A represents 3-pyridyl or phenyl group that is optionally substituted by one to three groups selected from the group consisting of fluoro, chloro, methyl, trifluoromethyl, and methoxy,

(T-3) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents piperidino, 4-hydroxypiperidino, 4-methyl-

piperazino, or morpholino,

R^{3A} represents chloro, dimethylamino, anilino, piperidino, 4-methylpiperazino, or morpholino,

R^{4A} represents hydrogen atom, and

Q^A represents phenyl group that is optionally substituted by one or two groups selected from the group consisting of methyl and methoxy,

(T-4) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents 1-pyrrolidinyl, piperidino, morpholino, or

1-pyrrolyl,

R^{3A} represents methyl or methoxymethyl,

R^{4A} represents chloro, and

Q^A represents phenyl or 1-naphthyl,

(T-5) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents 1-azilidinyl, piperidino, or morpholino,

R^{3A} represents methylthio,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy, and

(T-6) benzylpyrimidine derivatives in which

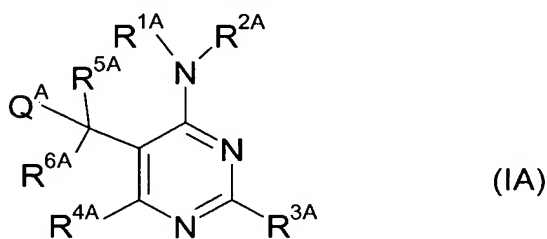
the group $\text{—N} \begin{smallmatrix} \text{R}^{1A} \\ \text{R}^{2A} \end{smallmatrix}$ represents 1-azilidinyl,

R^{3A} represents hydrogen atom or amino,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy.

Claim 13 (new): A process for the preparation of compounds of formula (IA)



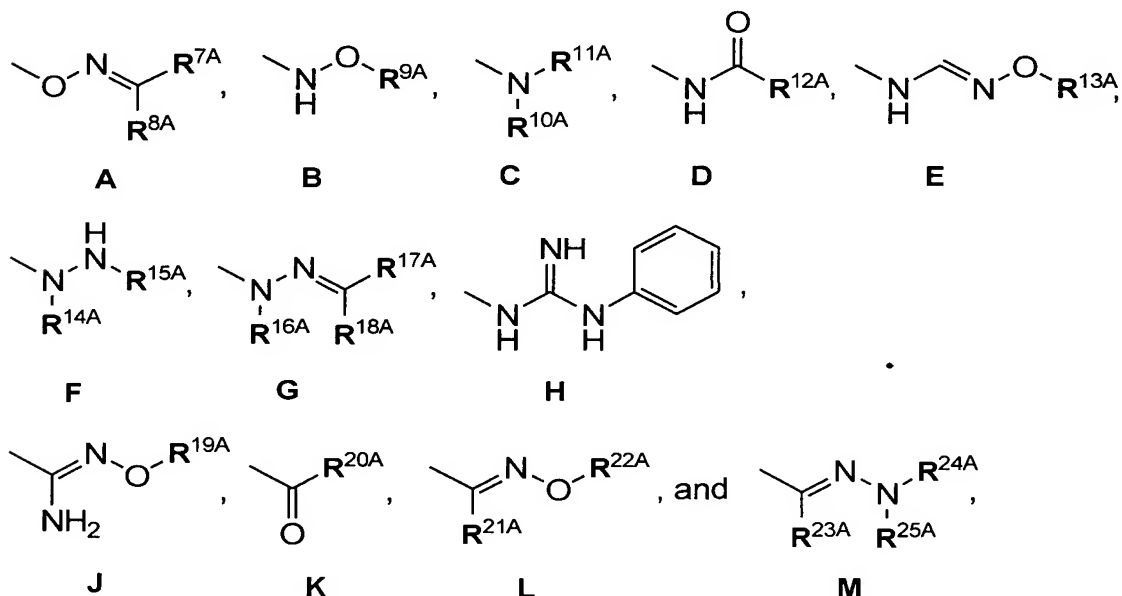
wherein

R^{1A} and R^{2A} , together with the nitrogen atom to which they are bonded, form a 3- to 10-membered heterocyclic group that is optionally substituted and optionally contains further one to three hetero atoms selected from the group consisting

of nitrogen atom, oxygen atom, and S(O)_m in addition to the nitrogen atom to which R^{1A} and R^{2A} are bonded,

m represents 0, 1, or 2,

R^{3A} represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted with a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a moiety selected from the group consisting of formulas A to H and J to M



in which

R^{7A} represents hydrogen atom, alkyl, or haloalkyl, and

R^{8A} represents alkyl, phenyl, alkoxy or cyano, or

R^{7A} and R^{8A}, together with the carbon atom to which they are bonded, form a cycloalkylidene or cyclohexylidene,

R^{9A} represents alkyl, haloalkenyl, or benzyl,

R^{10A} represents hydrogen atom or alkyl,

R^{11A} represents alkyl, alkoxyalkyl, dialkylaminoalkyl, phenyl, benzyl, or cyano,

R^{12A} represents alkyl or phenyl,

R^{13A} represents alkyl or benzyl,

R^{14A} represents hydrogen atom or alkyl,

R^{15A} represents hydrogen atom, haloalkyl, or phenyl,

R^{16A} represents hydrogen atom or alkyl,

R^{17A} represents hydrogen atom, alkyl, or haloalkyl,

R^{18A} represents alkyl or phenyl,

R^{19A} represents hydrogen atom or alkyl,

R^{20A} represents alkyl,

R^{21A} represents alkyl,

R^{22A} represents alkyl, alkenyl, haloalkenyl, alkoxyalkyl, phenoxyalkyl, or alkoxycarbonylalkyl,

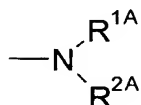
R^{23A} represents alkyl, and

R^{24A} represents hydrogen atom or alkyl, and

R^{25A} represents alkyl or phenyl, or

R^{24A} and R^{25A}, together with the nitrogen atom to which they are bonded, form a 5- to 8-membered saturated-monoheterocyclic group that is optionally substituted and optionally contains further one or two hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and S(O)_n in addition to the nitrogen atom to which R^{24A} and R^{25A} are bonded,

R^{4A} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



where R^{1A} and R^{2A} are as defined above,

R^{5A} and R^{6A} each independently represents hydrogen atom, halogen, alkyl, haloalkyl, or phenyl that is optionally substituted, and

Q^A represents aryl that is optionally substituted or a 5- or 6-membered heterocyclic group that contains one hetero atom selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted, with the proviso that the following cases (T-1) to (T-6) are excluded:

(T-1) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents 1-indolyl, 1-pyrrolyl, 1-imidazolyl, 3-oxo-

piperidino, or 4-oxopiperidino,

R^{3A} represents hydrogen atom,

R^{4A} represents hydrogen atom, and

Q^A represents 1-naphthyl or phenyl group that is optionally substituted by one or two groups selected from the group consisting of chloro, bromo, methyl, ethyl, and trifluoromethyl,

(T-2) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents 3-oxopiperidino, 4-oxopiperidino, 4-hydroxy-

piperidino, 4-carbamoylpiperidino, 4-methylpiperazino, 4-ethylpiperazino, 4-(2-hydroxyethyl)piperazino, or morpholino,

R^{3A} represents amino,

R^{4A} represents hydrogen atom, and

Q^A represents 3-pyridyl or phenyl group that is optionally substituted by one to three groups selected from the group consisting of fluoro, chloro, bromo, methyl, ethyl, isopropyl, trifluoromethyl, hydroxy, methoxy, and 4-chlorobenzyloxy,

(T-3) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{smallmatrix} \nearrow R^{1A} \\ \searrow R^{2A} \end{smallmatrix}$ represents piperidino, 4-hydroxypiperidino, 4-methyl-

piperazino, morpholino, 6,7-dimethoxy-1,2,3,4-tetrahydroisoquinolin-2-yl, or 6,7-dimethoxy-1-(3,4-dimethoxybenzyl)-1,2,3,4-tetrahydroisoquinolin-2-yl,

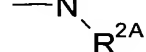
R^{3A} represents chloro, dimethylamino, anilino, 2-(2-hydroxyethoxy)ethyl-amino, piperidino, 4-hydroxypiperidino, 4-carbamoylpiperidino, 4-methylpiperazino, or morpholino,

R^{4A} represents hydrogen atom, and

Q^A represents phenyl group that is optionally substituted by one or two groups selected from the group consisting of methyl and methoxy,

(T-4) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-pyrrolidiny, piperidino, morpholino, or



1-pyrrolyl,

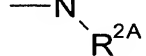
R^{3A} represents methyl or methoxymethyl,

R^{4A} represents chloro, and

Q^A represents phenyl or 1-naphthyl,

(T-5) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-azilidiny, piperidino, or morpholino,



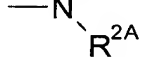
R^{3A} represents methylthio,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy, ethoxy, n-propoxy, iso-propoxy, n-butoxy, iso-butoxy, or allyloxy, and

(T-6) benzylpyrimidine derivatives in which

the group $\text{—N} \begin{matrix} \text{R}^{1A} \\ \text{R}^{2A} \end{matrix}$ represents 1-azilidiny,



R^{3A} represents hydrogen atom or amino,

R^{4A} represents chloro, and

Q^A represents phenyl group substituted by methoxy, ethoxy, or allyloxy,

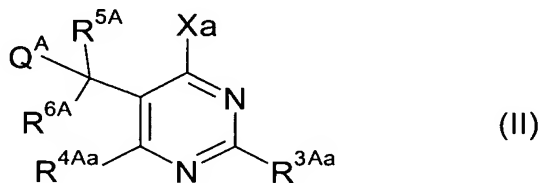
comprising

(a) for compounds of formula (IA) in which

R^{3A} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkylthio, alkenylthio, haloalkenylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that

is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{4A} represents hydrogen atom, halogen, alkyl, haloalkyl, or alkenyl, reacting a compound of formula (II)



wherein

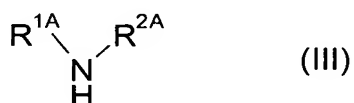
Xa represents halogen,

R^{3Aa} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkylthio, alkenylthio, haloalkenylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl,

R^{4Aa} represents hydrogen atom, halogen, alkyl, haloalkyl or alkenyl, and

R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

with a compound of formula (III)

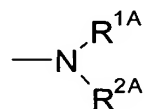


wherein R^{1A} and R^{2A} have the same definitions as for formula (IA), in the presence of an inert solvent and optionally in the presence of an acid binder,

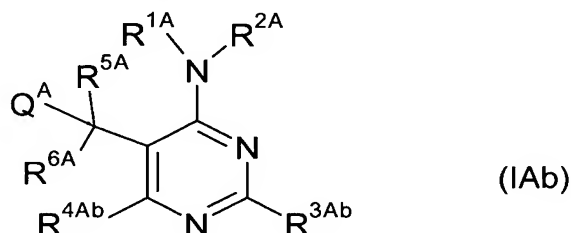
or

(b) for compounds of formula (IA) in which

- (i) R^{3A} represents alkylsulfinyl or alkylsulfonyl, and
 R^{4A} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy or a group

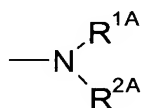


where R^{1A} and R^{2A} are as defined above,
 reacting a compound of formula (IAb)



wherein

- R^{3Ab} represents alkylthio, and
 R^{4Ab} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, or a group



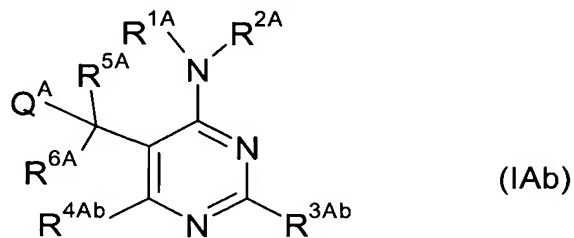
where R^{1A} and R^{2A} are as defined above, and
 R^{1A} , R^{2A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for
 formula (IA),

with an oxidizing agent in the presence of an inert solvent,

or

- (ii) R^{3A} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{4A} represents alkylsulfinyl or alkylsulfonyl,
 reacting a compound of formula (IAb)



wherein

R^{3Ab} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{4Ab} represents alkylthio, and

R^{1A} , R^{2A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

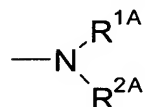
with an oxidizing agent in the presence of an inert solvent,

or

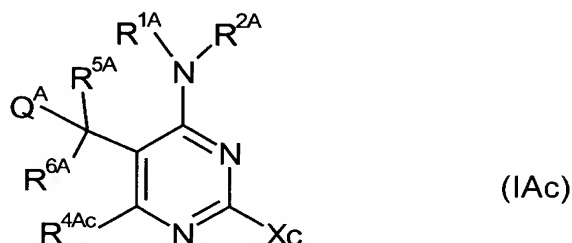
(c) for compounds of formula (IA) in which

R^{3A} represents cyano, hydroxy, azido, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a group A, group B, group C, group F, group G, or group H as defined for formula (IA), and

R^{4A} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, cyano, or a group



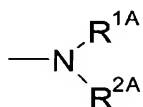
where R^{1A} and R^{2A} are as defined above,
reacting a compound of formula (IAc)



wherein

Xc represents halogen or methylsulfonyl,

R^{4Ac} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, cyano or a group



where R^{1A} and R^{2A} are as defined above, and
R^{1A}, R^{2A}, R^{5A}, R^{6A}, and Q^A have the same definitions as for
formula (IA),

with a compound of formula (IV)



wherein

Y represents hydrogen, sodium, potassium, copper, trimethylsilyl, or tetraalkylammonium,

R^{3Ac} represents cyano, hydroxy, azido, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group

consisting of halogen, alkyl, and haloalkyl; or represents a group A, group B, group C, group F, group G, or group H as defined for R^{3A} of formula (IA),

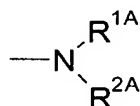
in the presence of an inert solvent, optionally in the presence of an acid binder, and optionally in the presence of a catalyst,

or

(d) for compounds of formula (IA) in which

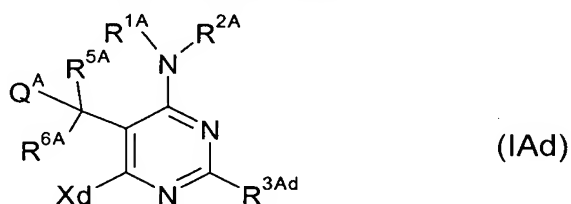
R^{3A} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkylthio, alkenylthio, haloalkenylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{4A} represents cyano, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio or a group



where R^{1A} and R^{2A} are as defined above,

reacting a compound of formula (IAd)



wherein

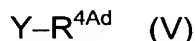
X_d represents halogen or methylsulfonyl,

R^{3Ad} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkylthio, alkenylthio, haloalkenylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms

selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{1A} , R^{2A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

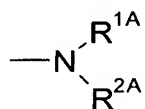
with a compound of formula (V)



wherein

Y represents hydrogen, sodium, potassium, copper, trimethylsilyl, or tetraalkylammonium, and

R^{4Ad} represents cyano, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, or a group



where R^{1A} and R^{2A} are as defined above,

in the presence of an inert solvent, optionally in the presence of an acid binder, and optionally in the presence of a catalyst,

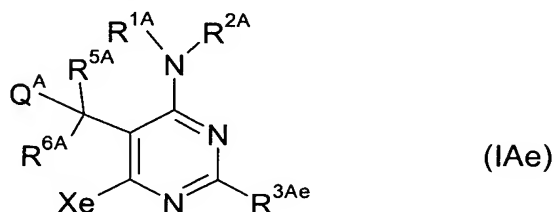
or

(e) for compounds of formula (IA) in which

R^{3A} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{4A} represents hydrogen,

hydrogenating a compound of formula (IAe)



wherein

Xe represents halogen,

R^{3Ae} represents hydrogen, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkylthio, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl, and

R^{1A}, R^{2A}, R^{5A}, R^{6A}, and Q^A have the same definitions as for formula (IA),

in the presence of an inert solvent, optionally in the presence of a catalyst, and optionally in the presence of an acid binder,

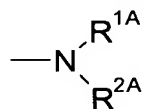
or

(f) for compounds of formula (IA) in which

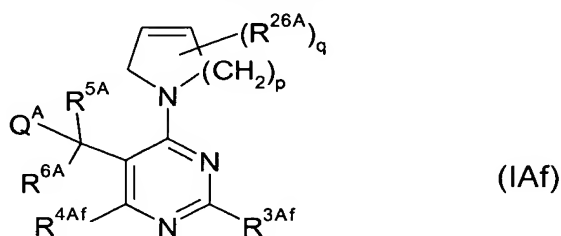
R^{3A} represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a group A,

group B, group C, group F, group G, or group H as defined for formula (IA),

R^{4A} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



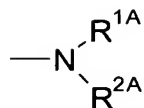
where R^{1A} and R^{2A} are as defined above,
reacting a compound of formula (IAf)



wherein

R^{3Af} represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted, phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted by a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a group A, group B, group C, group F, group G, or group H as defined for R^{3A} of formula (IA),

R^{4Af} represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



where R^{1A} and R^{2A} are as defined above,

R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

R^{26A} represents alkyl,

p represents 1 or 2, and

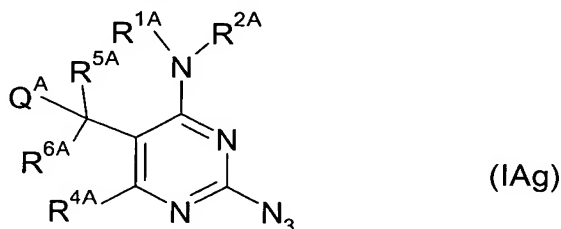
q represents 0, 1, or 2,

with difluorocarbene derived from sodium chlorodifluoroacetate or with dichlorocarbene derived from chloroform,

in the presence of an inert solvent and optionally in the presence of a phase-transfer catalyst,

or

- (g) for compounds of formula (IA) in which R^{3A} represents amino, hydrogenating or reacting with metal hydride a compound of formula (IAg)



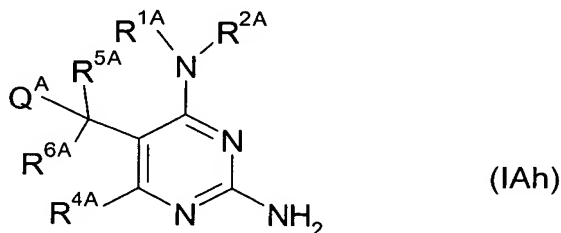
wherein R^{1A} , R^{2A} , R^{4A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

in the presence of an inert solvent and optionally in the presence of a catalyst,

or

- (h) for compounds of formula (IA) in which R^{3A} represents halogen,

- (1) in a first step, reacting a compound of formula (IAh)



wherein R^{1A} , R^{2A} , R^{4A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

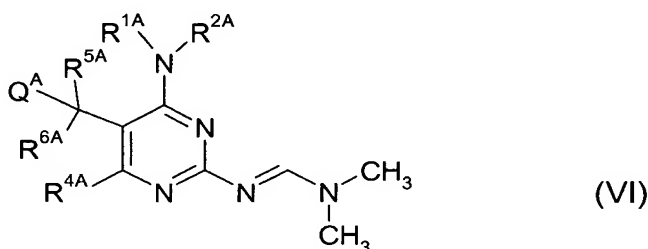
with a nitrite ester or nitrous acid in the presence of an inert solvent and optionally in the presence of acid catalyst to form a diazonium salt, and

- (2) in a second step, reacting the diazonium salt obtained in the first step according to Sandmeyer process or Gattermann process in the presence of copper halide, potassium halide, or copper powder, in the presence an inert solvent and optionally in the presence of acid catalyst,

or

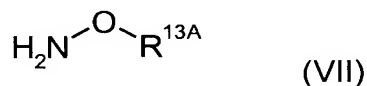
- (i) for compounds of formula (IA) in which R^{3A} represents group E,

- (1) in a first step, reacting a compound of formula (IAh) with dimethylformamide dimethylacetal in the presence of an inert solvent, to form a compound of formula (VI)



wherein R^{1A} , R^{2A} , R^{4A} , R^{5A} , R^{6A} and Q^A have the same definitions as for formula (IA), and

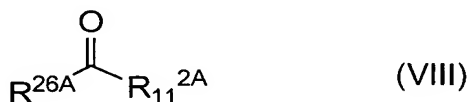
- (2) in a second step, reacting the compound of formula (VI) obtained in the first step with a compound of formula (VII)



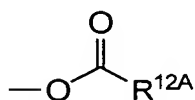
wherein R^{13A} has the same definition as for formula (IA), in the presence of an inert solvent, optionally in the presence of an acid binder, and optionally in the presence of an acid catalyst,

or

- (j) for compounds of formula (IA) in which R^{3A} represents the group D, reacting a compound of formula (IAh) with a compound of formula (VIII)



wherein R^{26A} represents chloro or a group



wherein R^{12A} has the same definition as for formula (IA),

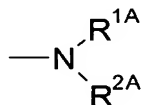
in the presence of an inert solvent and optionally in the presence of an acid binder,

or

(k) for compounds of formula (IA) in which

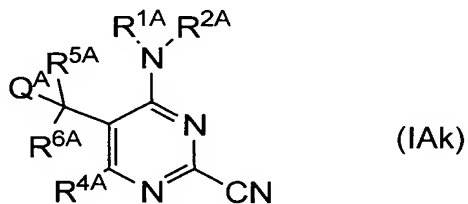
R^{3A} represents the group K, and

R^{4A} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



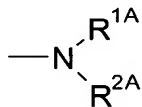
where R^{1A} and R^{2A} are as defined above,

reacting a compound of formula (IAk)



wherein

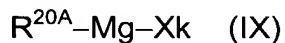
R^{4A} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



where R^{1A} and R^{2A} are as defined above, and

R^{1A} , R^{2A} , R^{5A} , R^{6A} , and Q^A have the same definitions as for formula (IA),

with a compound of formula (IX)



wherein

X_k represents halogen, and

R^{20A} has the same definition as for formula (IA),

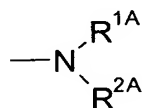
in the presence of an inert solvent,

or

(I) for compounds of formula (IA) in which

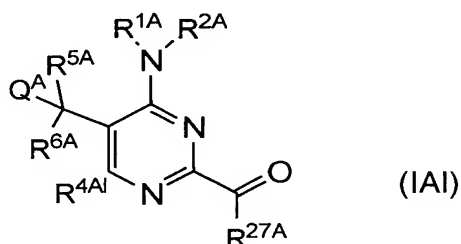
R^{3A} represents group L or group M, and

R^{4A} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



where R^{1A} and R^{2A} are as defined above,

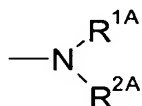
reacting a compound of formula (IAI)



wherein

R^{27A} represents alkyl,

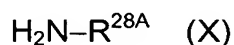
R^{4AI} represents hydrogen atom, halogen, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



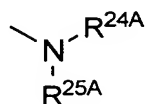
where R^{1A} and R^{2A} are as defined above, and

R^{1A}, R^{2A}, R^{5A}, R^{6A}, and Q^A have the same definitions as for formula (IA),

with a compound of formula (X)



wherein R^{28A} represents a group $-O-R^{22A}$ or a group



wherein R^{22A} , R^{24A} , and R^{25A} have the same definitions as for formula (IA),

in the presence of an inert solvent, optionally in the presence of acid binder, and optionally in the presence of acid catalyst,

or

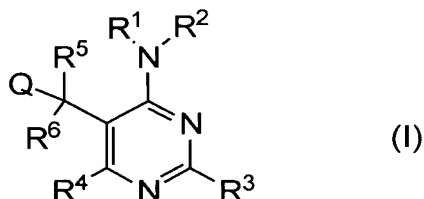
- (m) for compounds of formula (IA) in which R^{3A} represents group J, reacting a compound of formula (IAk) with a compound of formula (XI)



wherein R^{19A} has the same definition as for formula (IA),

in the presence of AN inert solvent, optionally in the presence of acid binder, and optionally in the presence of acid catalyst.

Claim 14 (new): An agrohorticultural fungicide comprising a benzylpyrimidine derivative of formula (I)



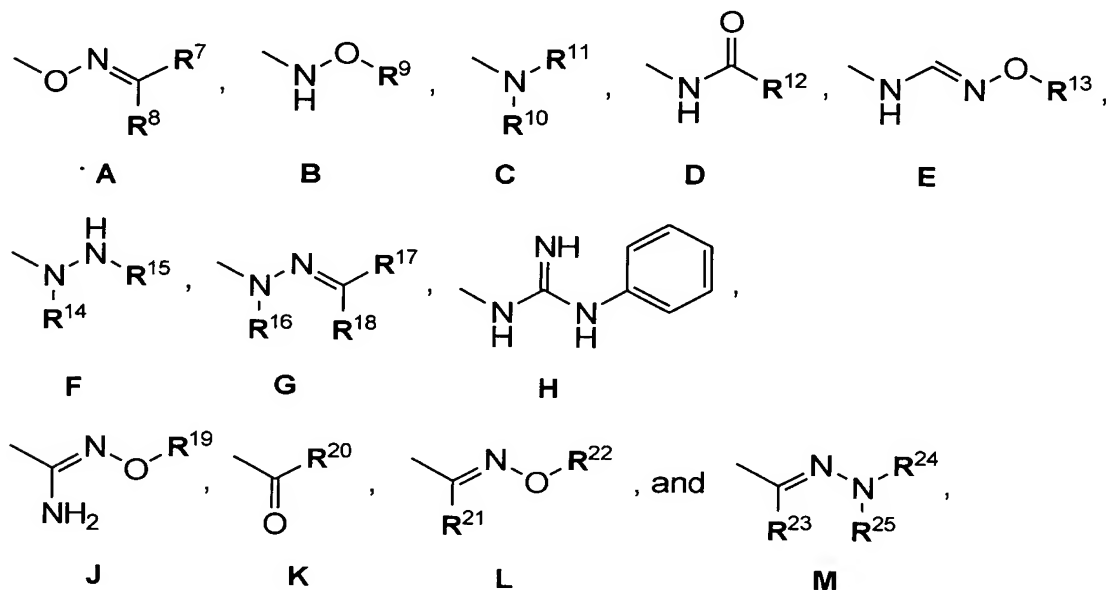
wherein

R^1 and R^2 , together with the nitrogen atom to which they are bonded, form a 3- to 10-membered heterocyclic group that is optionally substituted and optionally contains one to three further hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and $S(O)_n$ in addition to the nitrogen atom to which R^1 and R^2 are bonded,

n represents 0, 1, or 2,

R^3 represents hydrogen, halogen, cyano, hydroxy, amino, azido, alkyl, haloalkyl, alkoxyalkyl, cycloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkenyloxy, haloalkenyloxy, alkylthio, alkenylthio, haloalkenylthio, alkylsulfinyl, alkylsulfonyl, phenoxy that is optionally substituted, benzyloxy that is optionally substituted,

phenyl that is optionally substituted, phenylalkyl that is optionally substituted, phenoxyalkyl that is optionally substituted, or 5- to 10-membered heterocyclic group that contains one to four hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted with a group selected from the group consisting of halogen, alkyl, and haloalkyl; or represents a moiety selected from the group consisting of formulas A to H and J to M



in which

R^7 represents hydrogen atom, alkyl, or haloalkyl, and

R^8 represents alkyl, phenyl, alkoxy or cyano, or

R^7 and R^8 , together with the carbon atom to which they are bonded, form a cycloalkylidene,

R^9 represents alkyl, haloalkenyl, or benzyl,

R^{10} represents hydrogen atom or alkyl,

R^{11} represents alkyl, alkoxyalkyl, dialkylaminoalkyl, phenyl, benzyl, or cyano,

R^{12} represents alkyl or phenyl,

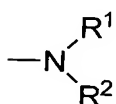
R^{13} represents alkyl or benzyl,

R^{14} represents hydrogen atom or alkyl,

R^{15} represents hydrogen atom, haloalkyl, or phenyl,

R^{16} represents hydrogen atom or alkyl,

- R^{17} represents hydrogen atom, alkyl, or haloalkyl,
 R^{18} represents alkyl or phenyl,
 R^{19} represents hydrogen atom or alkyl,
 R^{20} represents alkyl,
 R^{21} represents alkyl,
 R^{22} represents alkyl, alkenyl, haloalkenyl, alkoxyalkyl, phenoxyalkyl, or alkoxy carbonylalkyl,
 R^{23} represents alkyl, and
 R^{24} represents hydrogen atom or alkyl, and
 R^{25} represents alkyl or phenyl, or
 R^{24} and R^{25} , together with the nitrogen atom to which they are bonded, form a 5- to 8-membered saturated monoheterocyclic group that is optionally substituted and optionally contains one or two further hetero atoms selected from the group consisting of nitrogen atom, oxygen atom, and $S(O)_n$ in addition to the nitrogen atom to which R^{24} and R^{25} are bonded,
 R^4 represents hydrogen atom, halogen, cyano, alkyl, haloalkyl, alkenyl, alkynyl, alkoxy, haloalkoxy, alkylthio, haloalkylthio, alkylsulfinyl, alkylsulfonyl, or a group



- where R^1 and R^2 are as defined above,
 R^5 and R^6 each independently represents hydrogen atom, halogen, alkyl, haloalkyl, or phenyl that is optionally substituted, and
 Q represents aryl that is optionally substituted or a 5- or 6-membered heterocyclic group that contains one hetero atom selected from the group consisting of nitrogen atom, oxygen atom, and sulfur atom and is optionally substituted,
 and optionally one or more extenders and/or carriers and/or surfactants and/or further formulation auxiliaries.

Claim 15 (new) A process for the preparation of a microbicidal composition comprising mixing a benzylpyrimidine derivative of formula (I) according to Claim 14 with one or more extenders and/or surface active agents. --
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